

WHAT IS CLAIMED IS:

1. A network-device control system for performing priority control of a network device constituting a network based upon priority of an user, said system
- 5 comprising:
- an event notification device for detecting that a user has logged in to a communication terminal or that a user has launched a predetermined application from a communication terminal, and reporting an identifier of
- 10 the user and the fact that an event has occurred; and
- a network-device controller for performing priority control of a network device based upon information reported by said event notification device; wherein
- 15 said network-device controller acquires priority of the user indicated by the user identifier reported by said event notification device, obtains a network device on a communication path between said communication terminal and an apparatus that is the destination of communication, generates information necessary to
- 20 perform priority control in accordance with the user priority, and sets this priority control information in each network device.
2. The system according to claim 1, further comprising a database unit for storing, in association with a user
- 25 identifier, user information that includes the address of the apparatus that is the destination of communication and the user priority; wherein
- said event notification device acquires the

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priority of the user and the address of the apparatus that is the destination of communication from said database unit and reports these to said network-device controller.

5 3. The system according to claim 2, wherein

when a user has logged in by inputting the user identifier, the communication terminal sends this user identifier and the address of the communication terminal to said database unit;

10 said database unit stores the address of the communication terminal in association with the user identifier; and

said event notification device detects log-in by a change in user information in said database unit,  
15 acquires the priority of the user, the address of the apparatus that is the destination of communication and the address of the communication terminal from said database unit, and reports these to said network-device controller.

20 4. The system according to claim 2, wherein

when a user has launched a predetermined application, the communication terminal sends the user identifier, the address of the communication terminal and an application identifier of the application to said  
25 database unit;

said database unit stores the address of the communication terminal, the application identifier and the address of an apparatus that is the destination of

communication of the application in association with the user identifier; and

said event notification device detects an application-launch event by a change in application information in said database unit, acquires the priority of the user, the address of the apparatus that is the destination of communication and the address of the communication terminal from said database unit, and reports these to said network-device controller.

10 5. The system according to claim 1, wherein said event notification device includes:

an event detector for detecting that a user has logged in to a communication terminal or that a user has launched an application from a communication terminal;

15 and

an event notifier for notifying said network-device controller of the fact that the event occurred and of the user identifier; and

said network-device controller includes:

20 an event receiver for receiving notification from said event notifier;

a priority acquisition unit for acquiring the priority of the user indicated by the received user identifier;

25 a device selector for selecting a network device which is subjected to priority control based upon the priority of the user;

a device-specific information acquisition unit for

acquiring state of configuration of the selected network device and a method of configuring the device;

a configuration information generator for generating priority-control configuration information  
5 for performing priority control of each network device based upon the acquired device-specific information and user priority; and

configuration information transmitter for transmitting the priority-control configuration  
10 information, which has been generated by said configuration information generator, to the selected network device to thereby set this information in this network device.

6. The system according to claim 2, wherein a directory  
15 server is provided, said directory server being provided with said event notification device and said database unit.

7. A network-device control apparatus for performing priority control of a network device constituting a  
20 network based upon priority of an user, said apparatus comprising:

an event receiver for receiving an identifier of a user from an event notifier when the user has logged in to a communication terminal or when the user has  
25 launched an application;

means for acquiring priority of the user, which is indicated by the reported user identifier, and the address of an apparatus that is the destination of

communication by said communication terminal;

a device selector for selecting network devices on a path along which the communication terminal and the apparatus that is the destination of communication

5 communicate;

a generating unit for generating information necessary to perform priority control in accordance with the user priority; and

10 means for configuring the network device with the information that has been generated by said generating unit.

8. A network-device control system for performing priority control of a network device constituting a network based upon priority of an application, said  
15 system comprising:

an event notification device for detecting that a user has launched a predetermined application from a communication terminal, and reporting an identifier of the application and the fact that an application-launch  
20 event has occurred; and

a network-device controller for performing priority control of a network device based upon information reported by said event notification device; wherein

said network-device controller acquires priority of  
25 the application indicated by the application identifier reported by said event notification device, obtains network devices on a communication path between said communication terminal and an apparatus that is the

destination of communication, generates information necessary to control the network devices in accordance with the application priority, and configures each network device with this priority control information.

5 9. The system according to claim 8, further comprising a database unit for storing user information in association with a user identifier, and application information, which includes the application priority, in association with an application identifier; wherein

10 said event notification device acquires the priority of the application from said database unit and reports this application priority to said network-device controller.

10. The system according to claim 9, wherein  
15 when the user has launched a predetermined application, the communication terminal sends the application identifier and the address of the apparatus that is the destination of communication to said database unit and said database unit stores the  
20 application identifier and the address of the apparatus, which is the destination of communication, in association with the user identifier; and

said event notification device detects occurrence of an application-launch event by a change in the  
25 application information in the user information in said database unit, acquires the priority of the application, the address of the apparatus that is the destination of communication and the address of the communication

terminal from said database unit, and reports these to said network-device controller.

11. The system according to claim 8, wherein said event notification device includes:

5       an event detector for detecting that a communication terminal has given rise to an application-launch event; and

          an event notifier for notifying said network-device controller of the fact that the event occurred and of  
10   the application identifier; and

          said network-device controller includes:

          an event receiver for receiving notification from said event notifier;

          a priority acquisition unit for acquiring the  
15   priority of the application indicated by the received application identifier;

          a device selector for selecting a network device which is subjected to priority control based upon the priority of the application;

20       a device-specific information acquisition unit for acquiring state of configuration of the selected network device and a method of configuring the device;

          a configuration information generator for generating priority-control configuration information  
25   for performing priority control of each network device based upon the acquired device-specific information and application priority; and

          configuration information transmitter for

transmitting the priority-control configuration information, which has been generated by said configuration information generator, to the selected network device to thereby set this information in this  
5 network device.

12. The system according to claim 9, wherein a directory server is provided, said directory server being provided with said event notification device and said database unit.

10 13. A network-device control apparatus for performing priority control of a network device constituting a network based upon priority of an application, said apparatus comprising:

an event receiver for receiving an identifier of an  
15 application from an event notification device when a user has launched an application at a communication terminal;

means for acquiring priority of the application, which is indicated by the notified application  
20 identifier, and the address of an apparatus that is the destination of communication by said communication terminal based upon the application;

a device selector for selecting network devices on a path along which the communication terminal and the  
25 apparatus that is the destination of communication communicate;

a generating unit for generating information necessary to perform priority control in accordance with



the application priority; and

means for configuring the network device with the information that has been generated by said generating unit.

5 14. A network-device control system for controlling any one of bandwidth, discard rate and delay of a network device constituting a network, said system comprising:

an event notification device for detecting that a user has logged in to a communication terminal or that a  
10 user has launched a predetermined application from a communication terminal, and reporting an identifier of the user and the fact that an event has occurred; and

a network-device controller for controlling any one of bandwidth, discard rate and delay of a network device  
15 based upon information reported by said event notification device;

said network-device controller:

acquiring any one of a bandwidth value, discard-rate value and delay value conforming to a user  
20 identified by the user identifier reported by said event notification device;

obtaining network devices on a communication path between said communication terminal and an apparatus that is the destination of communication;

25 generating configuration information necessary to control any one of bandwidth, discard rate and delay in accordance with the value acquired; and

configuring each network device with this generated

configuration information.

15. A network-device control apparatus for controlling any one of bandwidth, discard rate and delay of a network device constituting a network, said apparatus  
5 comprising:

an event receiver for receiving at least an identifier of a user from an event notification device when the user has logged in to a communication terminal or when the user has a launched an application;

10 means for acquiring any one of a bandwidth value, discard-rate value and delay value conforming to a user identified by the notified user identifier, and the address of an apparatus that is the destination of communication by said communication terminal;

15 a device selector for selecting a network device on a path along which the communication terminal and the apparatus that is the destination of communication communicate;

a generating unit for generating configuration  
20 information necessary to control any one of bandwidth, discard rate and delay in accordance with said value acquired; and

means for configuring the network device with the configuration information that has been generated by  
25 said generating unit.

16. A network-device control system for controlling any one of bandwidth, discard rate and delay of a network device constituting a network, said system comprising:

an event notification device for detecting that a user has launched a predetermined application at a communication terminal, and reporting an identifier of the application and the fact that an application-launch event has occurred; and

5 a network-device controller for controlling any one of bandwidth, discard rate and delay of a network device based upon information reported by said event notification device;

10 said network-device controller:

acquiring any one of a bandwidth value, discard-rate value and delay value of an application identified by the application identifier reported by said event notification device;

15 obtaining network devices on a communication path between said communication terminal and an apparatus that is the destination of communication;

generating configuration information necessary to control any one of bandwidth, discard rate and delay in accordance with the value acquired; and

20 configuring each network device with this generated configuration information.

17. A network-device control apparatus for controlling any one of bandwidth, discard rate and delay of a network device constituting a network, said apparatus comprising:

25 an event receiver for receiving an identifier of an application from an event identification device when a

user has a launched an application at a communication terminal;

means for acquiring any one of a bandwidth value, discard-rate value and delay value conforming to an  
5 application identified by the reported application identifier, and the address of an apparatus that is the destination of communication by said communication terminal based upon the application;

a device selector for selecting a network device on  
10 a path along which the communication terminal and the apparatus that is the destination of communication communicate;

a generating unit for generating configuration information necessary to control any one of bandwidth,  
15 discard rate and delay in accordance with the value acquired; and

means for configuring the network device with the configuration information that has been generated by said generating unit.